

# STATE OF ALASKA

JAY S. HAMMOND, GOVERNOR

## DEPARTMENT OF NATURAL RESOURCES

DIVISION OF LANDS 323 E. 4TH AVENUE — ANCHORAGE 99501  
MINERALS & ENERGY MANAGEMENT

### DECISION AND FINDINGS OF THE DIRECTOR, DIVISION OF MINERALS AND ENERGY MANAGEMENT WITH RESPECT TO APPLICATION FOR APPROVAL OF UNIT AGREEMENT, PRUDHOE BAY UNIT

#### INTRODUCTION

Under AS 38.05.180, the Commissioner of Natural Resources, is authorized to enter into, and approve lessees' entrance into, unit agreements when the Commissioner determines that such agreements are necessary or advisable to conserve the natural resources of all or a part of an oil or gas pool or field and such unit agreement secures the proper protection of the public interest. In 1969, after discovery of the Prudhoe Bay oil field, the Commissioner of Natural Resources advised leaseholders that he believed because of the size of the Prudhoe Bay field a unit agreement likely would be necessary to prevent waste and otherwise protect the public interest. Subsequent delays in the construction of the Trans-Alaska Pipeline appear to have impeded effective efforts towards negotiation of such an agreement until 1974. On August 18, 1976, BP Alaska Inc. and Atlantic Richfield Company, as operators of the proposed unit, submitted to the Commissioner of Natural Resources a draft unit agreement. At the time that agreement was submitted, a public meeting was held. Comments by interested parties, the public and the statement of the Commissioner of Natural Resources at that meeting indicated that the agreement submitted on August 18 would have to be extensively reviewed by the Department of Natural Resources to assure that the agreement would be in the public interest.

During the several months after August 18, the Department, acting through the Director, Division of Minerals and Energy Management, (DMEM) reviewed the draft agreement and determined that certain of the provisions would not be approved in the public interest and that insufficient geologic and engineering data had been submitted to justify certain of the provisions contained in the August 18 submissions. The Director, DMEM, therefore requested of the working interest owners additional information and suggested modifications to the proposed unit agreement to make such agreement acceptable. These requests and suggestions resulted in numerous meetings and conferences between representatives of the State and the working interest owners. In late March, 1977 the working interest owners submitted to the Director, DMEM, a draft unit agreement which the Director preliminarily concluded was acceptable in that it adequately provided for conservation of the oil and gas resources and otherwise protected the interests of the State and public interest. The working interest owners then prepared formal copies of the unit agreement and submitted them to the Commissioner, Department of Natural Resources on March 29, 1977.

Since the meeting on August 18, 1976 the Director, DMEM, has represented the Commissioner in reviewing and discussing the unit agreement with the working interest owners pursuant to instruction of the Commissioner, Department of Natural Resources, as noted in the memorandum of March 30, 1977 from the Commissioner, and pursuant to instruction and delegation of the Director, Division of Lands,

AGD 1362814

(ADL) as noted in the memorandum of March 30, 1977 from the Director, ADL to the Director, DMEM; which document authorizes the Director, DMEM to take all action necessary to approve or disapprove the application which could have been taken by the Director, ADL. The Director, DMEM, however, will discharge only those duties of the Commissioner, Director and the Department imposed by AS 38.05. Duties of the Commissioner under AS 31.05 will be discharged by the Oil and Gas Conservation Committee pursuant to regulations 11 AAC 22.510, and delegation of authority from the Commissioner to the Oil and Gas Conservation Committee.

### Discussion of Unit Agreement

Submitted on March 29, 1977

The unit encompasses an area of approximately 245,767 acres, all of which is subject to oil and gas leases issued by the State of Alaska. This acreage corresponds (with one possible exception to be noted) to the Prudhoe Bay (Permo Triassic) Reservoir and all of the lands within the limits of any known reservoirs which overlie, underlie or abut that reservoir based on the best available geologic knowledge. This represents a reduction in size from the unit proposed by the initial draft agreement submitted in August, 1976. This reduction in size results from discussions between the working interest owners and representatives of the Department and was felt to be necessary by the Director, DMEM, because the working interest owners did not submit geologic and engineering data adequate to support the boundaries contained in the August, 1976 submission. One exception to the foregoing involves lands near the eastern boundary of the unit. The unit operators requested that such lands not be included in the unit area initially, but the lessees of such lands expressed a desire that such lands be included. The unit agreement does not include those lands but the unit proponents have agreed that the unit will be expanded within two years unless geological data available at that time indicates the lands should not be included.

Separate provisions in the agreement provide for expansion and/or contraction of the unit area at specified times to comport with actual field limits. These provisions also provide under certain conditions for segregation of leases upon expansion or contraction.

The basic form of the unit agreement is modeled after the current American Petroleum Institute Model Unit Agreement. Several minor and major modifications to this form were necessary to meet the specific requirements of Alaskan law and practice and special circumstances of the Prudhoe Bay field.

The agreement provides for plans of operation and development of the area within the unit without regard to lease boundaries and diverse ownership of those leases. This action will help coordinate the development activities, avoid unnecessary duplication of production and development facilities on and beneath the surface, centralize environmental responsibility and simplify regulation by the State's conservation agencies. This should minimize environmental impact on the area by reducing it to a level substantially below that which would likely result if attempts were made to operate and develop the leases individually instead of on a unitized basis.

The unit agreement creates an oil rim participating area and a gas cap participating area for the Prudhoe Bay Reservoir and establishes tract participation factors for each of these participating areas. Ownership of the oil and gas, of course,

would be based on lease ownership and tentative participation factors as contained in the agreement. This list indicates ownership of production from the oil rim participating area will be approximately as follows: Exxon Corporation 20.2730754%, Atlantic Richfield Company 20.2730754%, Sohio Petroleum Company 53.1552049%, other parties total the remaining 6.2986443%, and ownership of production from the gas cap participating area as follows: Exxon Corporation 42.1240052%, Atlantic Richfield Company 42.1240052%, Sohio Petroleum Company 14.8183707% and other parties total the remaining 0.9336189%. The agreement provides for establishment of additional participating areas for other reservoirs capable of sustained commercial production.

The unit agreement modifies favorably the State's right to take royalty in-kind. The agreement makes clear that the State has the right to take royalty in-kind prior to production on less than 6 months notice as provided in the existing oil and gas leases. Specifically, the agreement requires that the working interest owners give notice to the State 30 days in advance of production and the State then has 10 days to decide to take royalty either in-kind or in value. The agreement also provides for adjustments in the taking of oil and gas in-kind at the rate of 10% of nominated take on 90 days notice and total adjustment on 6 months notice.

The unit agreement includes a general plan for development and operation that establishes production rates of 1.5 million barrels of oil per day and sales of 2.0 billion cubic feet per day of gas as soon as treating and pipeline capacity are available. The Director has determined on the basis of information now available to him that such rates are consistent with sound conservation practices and, after execution by all parties having an interest in the Initial Participating Areas (as such term is defined in the unit agreement) provides for the protection of the correlative rights of all such parties, including the State of Alaska. The Director, DMEM, however will rely heavily on the determination of the Oil and Gas Conservation Committee before giving final approval of the plan and making recommendations to the Commissioner. The plan is subject to future adjustments in the interest of conservation and the prevention of waste as the subsequent production history of the field may require.

The unit operating plan also ensures that the working interest owners will diligently pursue development of the reservoirs within the unit, subject to the approval of the Director.

#### Decision and Findings

Subject to further consideration following a public hearing to be held regarding this matter, I find:

1. It is necessary and advisable in the public interest to approve and certify the unitized development and operation provided for in the unit agreement because such unitized development and operation:

- (a) would prevent and assist in preventing waste of oil and gas;
- (b) would provide for and ensure conservation of natural resources;
- (c) would reasonably increase the probability of recovering substantially more oil and gas from the unit area;
- (d) would protect the correlative rights of persons owning interests in the tracts of land referred to in the

AGD 1362816

- (d) proposed unit agreement;
  - (e) would protect the State royalty interest in the oil and gas of the unit area;
  - (f) would ensure efficient operation and development of the unit area;
  - (g) would reduce the cost of development and operation of the tracts included in the proposed unit agreement; and
  - (h) would provide for approval, control and review by the Director of the Division of Lands, Department of Natural Resources of further plans of development and operation of lands not included in the initial participating area designated in the proposed unit agreement.
2. The unitized development and operation of the subject tracts as a unit would substantially reduce the amount of surface lands and resources that would be utilized if the oil and gas leases were to be developed and operated on a non-unitized basis. This reduction in environmental impact would be in the public interest. Approval of this agreement will not limit or diminish access to public and navigable waters beyond any limitations (if any) already contained in the oil and gas leases covered by the unit agreement.
  3. The agreement would fairly, equitably, reasonably and adequately protect all parties in interest, including the State of Alaska. Each present and prospective party to the unit agreement is a holder of an Alaska oil and gas lease, or interest therein, and the signatories to the agreement hold sufficient interests in the proposed unit area to give reasonably effective control of operations.
  4. The provisions of the unit agreement, which establish, alter, change or revoke provisions of the oil and gas leases relating to drilling, producing, term, rental, minimum royalty and royalty, protect the correlative rights of all parties having interests in the oil and gas resources and secure the proper protection of the public interest.
  5. Because of the size and geologic and engineering characteristic of the Prudhoe Bay oil pool, unitization of the leases covering the lands overlying that pool will assist in the conservation of oil and gas resources and is therefore in the public interest.
  6. Inclusion within such unit agreement of other hydrocarbon pools will likely further the production and development of those pools and is, therefore, in the public interest.
  7. The area contained within the unit is proper in the light of geologic and engineering data submitted to the Department. Further, where uncertainty or disagreement might exist with respect to the proper boundary of the unit, the provisions in the unit agreement providing for future expansions or contractions of the unit area are fair and adequate in the light of engineering and geologic data I have reviewed. Therefore, the public interest and the correlative rights of all parties are protected.

8. It is appropriate to conform the effective date of approval and certification of the unit agreement to the effective date of the agreement itself.
9. The unitized development and operation of the tracts as provided in the unit agreement is necessary to and does prevent or assist in preventing waste, ensure a greater ultimate recovery of oil and gas, protect the correlative rights of persons owning interest in the tracts referred to in the unit agreement, and increase recovery of oil and gas from the unit area, and otherwise furthers conservation of natural products in the public interest.

O. K. Gilbreth, Jr.  
O. K. Gilbreth, Jr., Director

Date April 4, 1977